CLAIMS

1. An isolated CCN1 fragment comprising *x* amino acids, wherein the sequence of said fragment is within a sequence selected from the group consisting of:

(a) amino acids 224-240 of murine CCN1;

(b) amino acids 231-240 of murine CCN1;

(c) amino acids 226-242 of human CCN1; and

(d) amino acids 233-242 of human CCN1,

or a variant, analog, homolog or derivative of said fragment, provided that *x* is from 8 to 50.

2. A method of screening for a modulator of angiogenesis comprising:

(a) contacting a first biological sample capable of undergoing angiogenesis with an ECM signaling molecule and a suspected modulator;

(b) contacting a second biological sample with an ECM signaling molecule; and

(c) comparing the level of angiogenesis resulting from step (a) and from step (b), whereby a modulator of angiogenesis is identified by its ability to alter the level of angiogenesis when compared to step (b),

wherein said ECM signaling molecule is a CCN1 fragment according to claim 1 or a fragment, variant, analog, homolog or a derivative thereof.

3. The method of claim 2 wherein the biological samples of steps (a) and (b) are also contacted with one or more CCN polypeptides selected from the group consisting of CCN1, CCN2, CCN3, CCN4, CCN5 and CCN6, or a fragment, variant, analog, homolog or derivative of said one or more CCN polypeptides.

4. A method of screening for a modulator of angiogenesis comprising:

(a) implanting a first implant comprising an ECM signaling molecule and a suspected modulator in a first cornea of a test animal;

(b) implanting a second implant comprising an ECM signaling molecule in a second cornea of said test animal;

(c) comparing the development of blood vessels from step (a) and step (b), whereby a modulator of angiogenesis is identified by its ability to alter the level of blood vessel development in step (a) when compared to the blood vessel development in step (b).

wherein said ECM signaling molecule is a CCN1 fragment according to claim 1 or a fragment, variant, analog, homolog or a derivative thereof.

5. The method of claim 4 wherein the implants of steps (a) and (b) further comprise one or more CCN polypeptides selected from the group consisting of CCN1, CCN2, CCN3, CCN4, CCN5 and CCN6, or a fragment, variant, analog, homolog or derivative of said one or more CCN polypeptides.

6. A method of screening for a modulator of oncogenesis comprising:

(a) administering an ECM signaling molecule and a suspected modulator to a first tumor;

(b) administering an ECM signaling molecule to a second tumor; and

(c) comparing the level of oncogenesis resulting from step (a) and from step (b), whereby a modulator of oncogenesis is identified by its ability to alter the level of oncogenesis when compared to step (b),

wherein said ECM signaling molecule is a CCN1 fragment according to claim 1 or a fragment, variant, analog, homolog or a derivative thereof.

7. The method of claim 6 wherein the tumors of steps (a) and (b) are also administered one or more CCN polypeptides selected from the group consisting of CCN1, CCN2, CCN3, CCN4, CCN5 and CCN6, or a fragment, variant, analog, homolog or derivative of said one or more CCN polypeptides.

8. A method of screening for a modulator of cell adhesion comprising:

(a) adding an ECM signaling molecule and a suspected modulator to a first biological sample on a surface compatible with cell adherence;

(b) adding an ECM signaling molecule to a second biological sample on a surface compatible with cell adherence; and

(c) comparing the levels of cell adhesion measured in step (a) and step (b), whereby a modulator of cell adhesion is identified by its ability to alter the level of cell adhesion when compared to step (b),

wherein said ECM signaling molecule is a CCN1 fragment according to claim 1 or a fragment, variant, analog, homolog or a derivative thereof.

9. The method of claim 8 wherein the biological samples of steps (a) and (b) are also administered one or more CCN polypeptides selected from the group consisting of CCN1, CCN2, CCN3, CCN4, CCN5 and CCN6, or a fragment, variant, analog, homolog or derivative of said one or more CCN polypeptides.

10. A method of screening for a modulator of cell migration comprising the steps of:

(a) seeding cells capable of undergoing cell migration onto a first gel matrix comprising an ECM signaling molecule and a suspected modulator;

(b) seeding cells capable of undergoing cell migration onto a second gel matrix comprising an ECM signaling molecule; and

(c) comparing the levels of cell migration measured in step (a) and step (b), whereby a modulator of cell migration is identified by its ability to alter the level of cell migration when compared to step (b),

wherein said ECM signaling molecule is a CCN1 fragment according to claim 1 or a fragment, variant, analog, homolog or a derivative thereof.

11. The method of claim 10 wherein the matrixes of (a) and (b) further comprise one or more CCN polypeptides selected from the group consisting of CCN1, CCN2, CCN3, CCN4, CCN5 and CCN6, or a fragment, variant, analog, homolog or derivative of said one or more CCN polypeptides.

12. A modulator identified by any one of the methods according to claims 2-11.

13. A pharmaceutical composition comprising a modulator according to claim 12 and a pharmaceutically acceptable adjuvant, diluent, or carrier.

14. A pharmaceutical composition comprising a CCN1 fragment according to claim 1 or a fragment, variant, analog, homolog or a derivative thereof, and a pharmaceutically acceptable adjuvant, diluent, or carrier.

15. An antibody that specifically binds to a CCN1 fragment according to claim 1 or a fragment, variant, analog, homolog or a derivative of said CCN1 fragment.

16. A pharmaceutical composition comprising an antibody according to claim 15 and a pharmaceutically acceptable adjuvant, diluent, or carrier.

17. A method of modulating CCN1 in a patient comprising administering to a patient in need thereof a compositon according to any one of claims 14-16.